Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently amended): A method for treating or preventing organ or tissue transplant rejection or an autoimmune disease or for preventing graft-versus-host disease in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of use of a protein kinase C inhibitor of formula I, II, III or IV or a pharmaceutically acceptable salt, hydrate or solvate thereof in the preparation of a pharmaceutical composition for the treatment and prevention of autoimmune diseases,

wherein compounds of formula I are

wherein

each of R₁ and R'₁, independently, is hydrogen, alkyl, haloalkyl, alkenyl, arylalkyl, alkoxyalkyl, hydroxyalkyl, aminoalkyl, monoalkylaminoalkyl, dialkylaminoalkyl, acylaminoalkyl, acyloxyalkyl, cyanoalkyl, amidinoalkyl, carboxyalkyl, alkoxycarbonylalkyl, aminocarbonylalkyl, or a group of the formula (a), (b) or (c)

wherein Het signifies a heterocyclyl group; W signifies NH, S or a bond; T signifies NH or S; V signifies 0, S. NH, or NCN; A signifies alkylthio, amino, monoalkylamino or dialkylamino; Ar signifies aryl;

each of R_2 and R'_2 , independently, is hydrogen, alkyl, alkoxyalkyl, hydroxyalkyl, C_1 - C_3 alkyl, C_1 - C_3 alkyl, C_3 ;

or R_1 and R_2 form together — $(CH_2)_r$ —X— CH_2 — wherein r is 1, 2, or 3, and X is CHR₈ or NR₈ wherein R₈ is $(CH_2)_s$ R₉ wherein R₉ is hydrogen, hydroxy, alkoxy, amino,

monoalkylamino, dialkylamino, trialkylamino, azido, acylamino, alkoxycarbonyl, cyano, amidino, or aminocarbonyl, and s is 0, 1, 2 or 3;

R₃ is hydrogen or CH₃CO;

each of R_4 , R_5 , R_5 , R_5 , R_6 , R_6 , R_7 and R_7 , independently, is hydrogen, halogen, alkyl, hydroxy, alkoxy, —COO(C_1 - C_3 alkyl), CF₃, nitro, amino, acetylamino, monoalkylamino, dialkylamino, alkylthio, C_1 - C_3 alkylthio, or S(O) C_1 - C_3 alkyl; and

n is 1, 2, 3, 4, 5 or 6;

and compounds of formula II are

wherein

R₁ is a group of formula (d), (e) or (f)

$$(CH_2)_u$$

$$(CH_2)_q$$

wherein each of p and q independently is 1, 2, 3, or 4;

s is 0, 1,2 or 3;

t is 1 or 2;

u is 0 or 1; and

R₁₂ is hydrogen, alkyl, haloalkyl, cycloalkyl, acetyl, aryl, --CH(aryl)₂, amino, monoaikylamino, dialkylamino, guanidino, —C(=N(alkoxycarbonyl))NH(alkyoxycarbonyl), amidino, hydroxy, carboxy, alkoxycarbonyl or heterocyclyl;

 R'_1 is hydrogen, C_{1-4} alkyl, aminoalkyl, monoalkylaminoalkyl, or dialkylaminoalkyl, each of R_2 and R'_2 , independently, is hydrogen, alkyl, alkoxyalkyl, hydroxyalkyl, C_1 - C_3 alkyl, C_1 - C_3 alkyl, C_3 - C_3 alkyl, C_3 - C_3 -

R₃ is hydrogen or CH₃CO—; and

each of R_4 , R'_4 , R_5 , R'_5 , R_6 , R'_6 , R_7 and R'_7 , independently, is hydrogen, halogen, alkyl, hydroxy, alkoxy, --COO(C_1 - C_3 alkyl), CF_3 , nitro, amino, acetylamino, monoalkylamino, dialkylamino, alkylthio, C_1 - C_3 alkylthio, or $S(O)C_1$ - C_3 alkyl;

and compounds of formula III are

$$\begin{array}{c}
R_{5} \\
R_{6}
\end{array}$$

$$\begin{array}{c}
R_{7} \\
R_{7}
\end{array}$$

$$\begin{array}{c}
R_{1} \\
R_{1}
\end{array}$$

$$\begin{array}{c}
R_{1} \\
R_{1}
\end{array}$$

wherein

 R'_1 is hydrogen, C_1 - C_4 alkyl, aminoalkyl, monoalkylaminoalkyl, or dialkylaminoalkyl; R'_2 is hydrogen, alkyl, alkoxyalkyl, hydroxyalkyl, C_1 - C_3 alkylthio, $S(O)C_1$ - C_3 alkyl, CF_3 R_3 is hydrogen or CH_3CO —;

each of R_4 , R_{4} , R_{5} , R_{5} , R_{6} , R_{7} and R_{7} , independently, is hydrogen, halogen, alkyl, hydroxy, alkoxy, —COO(C_1 - C_3 alkyl), CF₃, nitro, amino, acetylamino, monoalkylamino, dialkylamino, alkylthio, C_1 - C_3 alkylthio, or S(O) C_1 - C_3 alkyl;

X is CR_8R_9 wherein R_8 is $(CH_2)_sR_{10}$ wherein R_9 is $(CH_2)_sR_{11}$, each of R_{10} and R_{11} , independently, is hydroxy, alkoxy, carboxy, acyloxy, amino, monoalkylamino, dialkylamino, trialkylamino, azido, acylamino, alkoxycarbonyl, cyano, amidino, or aminocarbonyl, and s is 0, 1, 2 or 3; and

r is 1, 2, or 3; and

and compounds of formula IV are

$$R_{5}$$
 R_{7}
 R_{1}
 R_{1}

wherein

R₁ at is alkylglycose residue or a group of formula (g) or (h)

$$--(CH2)n-O-NH-cycloalkyl (g)$$

$$--(C1-4alkyl)-NH-(h)$$

wherein n is 1, 2, 3, 4, 5 or 6;

R'₁ is hydrogen, C₁-C₄alkyl, cyclopropylmethyl, aminoalkyl, monoalkylaminoalkyl, or, dialkylaminoalkyl;

each of R_2 and R'_2 , independently, is hydrogen, alkyl, alkoxyalkyl, hydroxyalkyl, C_3 - C_3 alkylthio, $S(O)C_1$ - C_3 alkyl, CF_3 ;

R₃ is hydrogen or CH₃CO—; and

each of R_4 , R_5 , R_5 , R_6 , R_6 , R_7 and R_7 , independently, is hydrogen, halogen, alkyl, hydroxy, alkoxy, --COO(C_1 - C_3 alkyl), CF_3 , nitro, amino, acetylamino, monoalkylamino, dialkylamino, alkylthio, C_1 - C_3 alkylthio, or $S(O)C_1$ - C_3 alkyl.

- Claim 2. (Currently amended): Use A method according to claim 1 for the treatment or prevention of an autoimmune disease wherein the autoimmune diseases are is selected from an inflammatory bowel diseases e.g. Crohn's disease and ulcerative colitis; amyotrophic lateral sclerosis; multiple sclerosis; rheumatoid arthritis and hepatitis C.
- Claim 3. (Currently amended): Use of a protein kinase C inhibitor of formula I, II, III or IV A method according to claim 1, or a pharmaceutically acceptable salt, hydrate or solvate thereof in the preparation of a pharmaceutical composition for the treatment and prevention of organ or tissue transplant rejection and or for the prevention of graft-versus-host disease.
- Claim 4. (Currently amended): Use A method according to claim 1 any one of claims 1 to 3 wherein the protein kinase C inhibitor is a compound of formula la, lb, lla, lla or a pharmaceutically acceptable salt, hydrate or solvate thereof.
- Claim 5. (Currently amended): Use A method according to claim 1 any one of claims 1 to 3 wherein the protein kinase C inhibitor is 3-(1-methyl-1H-indol-3-yl)-4-[1-{(1-pyridin-2-ylmethyl)-piperidin-4-yl}-1H-indol-3-yl]-pyrrole-2,5-dione, or 3-(1-methyl-1H-indol-3-yl)-4-[1-(piperidin-4-yl)-1H-indol-3-yl]-pyrrole-2,5-dione, or a pharmaceutically acceptable salt, hydrate or solvate thereof.
- Claim 6. (Currently amended): A pharmaceutical composition for use in the treatment and prevention of organ or tissue transplant rejection and for the prevention of graft-versus-host disease and/or of autoimmune diseases comprising a protein kinase C inhibitor of formula I, II, III or IV as defined in claim 1 or a pharmaceutically acceptable salt, hydrate or

- solvate thereof, together with one or more pharmaceutically acceptable diluents or carriers therefor.
- Claim 7. (Currently amended): <u>A composition Composition</u> according to claim 6 wherein the protein kinase C inhibitor is a compound of formula Ia, Ib, IIa, IIIa or a pharmaceutically acceptable salt, hydrate or solvate thereof.
- Claim 8. (Currently amended): A composition Composition according to claim 6 wherein the protein kinase C inhibitor is 3-(1-methyl-1H-indol-3-yl)-4-[1-{(1-pyridin-2-ylmethyl)-piperidin-4-yl}-1H-indol-3-yl]-pyrrole-2,5-dione or 3-(1-methyl-1H-indol-3-yl)-4-[1-(piperidin-4-yl)-1H-indol-3-yl]-pyrrole-2,5-dione, or a pharmaceutically acceptable salt, hydrate or solvate thereof.
- Claim 9. (Currently amended): A pharmaceutical combination comprising a) a protein kinase C inhibitor of formula I, II, III or IV as defined in claim 1, or a pharmaceutically acceptable salt, hydrate or solvate thereof, and b) at least one second agent selected from an immunosuppressant and immunomodulatory drug.
- Claim 10. (Currently amended): A pharmaceutical combination comprising a) a protein kinase C inhibitor of formula la, lb, lla, or Illa <u>as defined in claim 1</u>, e.g. 3-(1-methyl 1H-indol 3-yl) 4-[1-(1-pyridin-2-ylmethyl) piperidin-4-yl)-1H-indol 3-yl] pyrrole-2,5 dione or 3-(1-methyl 1H-indol 3-yl) 4-[1-(piperidin 4-yl)-1H-indol 3-yl] pyrrole-2,5 dione; or a pharmaceutically acceptable salt, hydrate or solvate thereof and b) at least one second agent selected from an immunosuppressant and immunomodulatory drug.

Claim 11. (Canceled)

- Claim 12. (New): A method according to claim 2 wherein the protein kinase C inhibitor is 3-(1-methyl-1H-indol-3-yl)-4-[1-{(1-pyridin-2-ylmethyl)-piperidin-4-yl}-1H-indol-3-yl]-pyrrole-2,5-dione, or 3-(1-methyl-1H-indol-3-yl)-4-[1-(piperidin-4-yl)-1H-indol-3-yl]-pyrrole-2,5-dione, or a pharmaceutically acceptable salt, hydrate or solvate thereof.
- Claim 13. (New): A method according to claim 3 wherein the protein kinase C inhibitor is 3-(1-methyl-1H-indol-3-yl)-4-[1-{(1-pyridin-2-ylmethyl)-piperidin-4-yl}-1H-indol-3-yl]-pyrrole-2,5-dione, or 3-(1-methyl-1H-indol-3-yl)-4-[1-(piperidin-4-yl)-1H-indol-3-yl]-pyrrole-2,5-dione, or a pharmaceutically acceptable salt, hydrate or solvate thereof.
- Claim 14. (New): A pharmaceutical combination according to claim 10 wherein a) is 3-(1-methyl-1H-indol-3-yl)-4-[1-{(1-pyridin-2-ylmethyl)-piperidin-4-yl}-1H-indol-3-yl]-pyrrole-2,5-dione or 3-(1-methyl-1H-indol-3-yl)-4-[1-(piperidin-4-yl)-1H-indol-3-yl]-pyrrole-2,5-dione.